ABSTRACT

Oligomeric procyanidins containing 4α -linked epicatechin units are rare in nature and have hitherto not been accessible through stereoselective synthesis. Provided herein is the preparation of the prototypical dimer, epicatechin- 4α ,8-epicatechin, by reaction of the protected 4-ketones with aryllithium reagents derived by halogen/metal exchange from the aryl bromides. Removal of the 4-hydroxyl group from the resulting tertiary benzylic alcohols is effected by tri-n-butyltin hydride and trifluoroacetic acid in a completely stereoselective manner, resulting in hydride delivery exclusively from the β face.

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